



Project and Audit considerations for SAP S/4HANA and acquisition projects —
Schneider Downs



Agenda

Big Thinking. Personal Focus

- » Introductions
- » Schneider Downs Profile
- » Advisory and SAP Services
- » SAP S/4HANA and acquisition projects

SAP Services – Schneider Downs

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Schneider Downs

Big Thinking. Personal Focus.

David J. Snyder, CISA, CIA

Dave supports Eric Wright by leading the SAP Services group in IT Risk Advisory Services. He has more than 22 years of experience in Internal Audit and 17 years of experience leading and testing SOX IT design and control effectiveness testing. Prior to joining Schneider Downs in 2015, Dave served as a SAP IT auditor for a Fortune 500 energy company for 14 years. He is a well-rounded auditor who specializes in SAP, IT general computer controls, Sarbanes-Oxley (SOX) IT frameworks, data analytics with more than 15 years of ACL experience, risk and control assessments, system development reviews, and SSAE 18 and SOC 2 testing.

Dave has more than 16 years of SAP experience and has served on two SAP implementations. SAP experiences include leading, planning, testing, and reviewing SAP IT and business process audit engagements. Dave specializes in SAP with the focus on: 1) SAP general computer controls, including SAP authorizations and transport management, 2) SOX integration for merger and acquisitions, 3) SAP GRC including Risk Analysis and Remediation, Access Enforcer/Compliant User Provisioning, and FireFighter/Superuser Privilege Management, 4) SAP transaction and SAP table knowledge, 5) SAP IMG configuration testing, and 6) ACL SAP Direct Link.

Dave provides audit and assurance services and business advisory services for a wide range of clients, both public and privately-held companies in a variety of industries.

Dave has completed the following SAP training: ADM940 SAP Authorization Concept, ADM950 Secure SAP System Management, TGRC20 Compliance Calibrator Implementer Training, BW305 Business Information Warehouse – Reporting & Analysis, BW365 Business Information Warehouse – Authorization, AC405 Cost Centers and Internal Orders.

Dave is a Certified Information Systems Auditor and a Certified Internal Auditor. Dave also is a SAP ASUG volunteer for the Pittsburgh Chapter.

B.S. – Management Information Systems, Indiana University of PA



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Schneider Downs

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Schneider Downs Profile

- Fourth-largest accounting firm in Western Pennsylvania and ranked in the top 60 accounting firms in the U.S.
- Headquartered in Pittsburgh, PA with our main offices in Pittsburgh, PA and **Columbus, OH**.
- Approximately 500 employees, including 48 shareholders and partners
- Serving clients both nationally and internationally
- Organizing member of PrimeGlobal, an international accounting association
- Access to subject-matter expertise to provide diverse and deep expertise when needed
- Significant experience serving large global public companies

SCHNEIDER DOWNS' GROUP OF COMPANIES



SCHNEIDER DOWNS' AWARDS



Recipient of
ClearlyRated's Best of
Accounting™ Award for
providing superior
service to our clients



Recognized by *Inside
Public Accounting* in
receiving a Best of the
Best Award

Schneider Downs Advisory Services



BUSINESS ADVISORY

- Transaction Advisory
- Due Diligence
- Forensic Accounting
- Executive Compensation
- Valuation
- Litigation Support



RISK ADVISORY

- Internal Audit Sourcing/Co-Sourcing
- IT Audit
- Risk Management & Compliance Services
- Business Process Optimization



TAX ADVISORY

- Domestic Income Tax
- State and Local Tax
- International Tax
- Transaction Advisory
- Credits and Incentives
- Methods and Elections
- Not-for-Profit



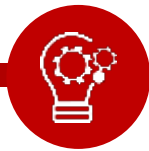
ACCOUNTING ADVISORY

- Major Accounting Standard Adoption
- Technical Accounting Assistance
- Outsourced Accounting Services



CYBERSECURITY

- Penetration Testing
- Compliance Based Assessments
- Cybersecurity Maturity Assessments
- Digital Forensics and Incident Response



TECHNOLOGY ADVISORY

- Robotic Process Automation (RPA)
- Data Management, Reporting, Dashboarding and Analytics
- Software Implementation
- Technology Consulting



RETIREMENT SOLUTIONS

- Retirement Plan Design Analysis
- Fiduciary Risk Assessment
- Regulatory Consulting
- Investment Advisory
- Executive Compensation Solutions



CORPORATE FINANCE

- Buy-side M&A Advisory
- Sell-side M&A Advisory
- Capital Raising
- Real Estate Capital Markets
- Corporate Finance Consulting

SAP Services – Schneider Downs

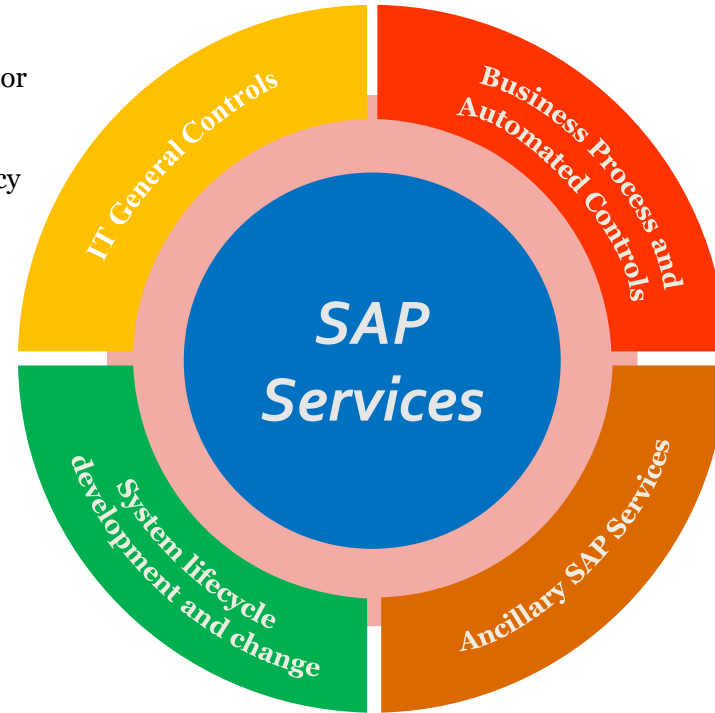
Providing the experience and expertise for your SAP projects and audits

IT General Controls

- ITGC audits
- Change management evaluations – configuration, transport process, vendor releases, reporting
- Application security evaluations
- GRC reviews – risk analysis, emergency access management
- Segregation of duties and sensitive transaction assessments
- Logging and monitoring SOD requirements
- Job scheduling assessments
- SOC 1 report assessments

System lifecycle development and change

- SAP S/4HANA projects
- Implementations and upgrades
- Mergers and acquisitions
- Project governance
- Controls Team/Consultant
- Mapping existing controls to SAP controls
- Security and control design
- SDLC control design
- “In-flight” SDLC, ITGC, security and control reviews
- Systems and IT controls implementation/evaluation
- Pre/post system implementations reviews



Business Process and Automated Controls

- Business Process Reviews
- Identification and testing of SPRO IMG automated controls
- System interfaces and data quality
- Evaluating replacing manual controls with SAP automated controls
- Data Analysis through SAP tables

Ancillary SAP Services

- Cybersecurity Services
- Penetration Testing
- Privacy/Confidentiality Services (e.g., GDPR, HIPAA, PCI, NIST, ISO, etc)
- Data Analytics
- Process Optimization
- Control Optimization
- Flowcharting
- Reporting baseline requirements
- IPE requirements
- Training



SCHNEIDER DOWNS SAP Services

- » Experienced financial and IT audit and control resources
- » Regional firm with Big 4 experience and talent
- » Project experience

Schneider Downs can help your organization with your SAP projects.

Going to SAP S/4HANA.....

Now What (Audit Perspective)?

- » Start early
 - » Many critical decisions need to be made before the project starts (e.g., Implementation partner, scope, Greenfield vs. Brownfield, prechecks)
 - » Going to SAP S/4HANA, you need to be SOX compliant at Go Live.
- » Get internal audit involved in the project (at least as part-time members).
- » Management is still responsible for the control environment.
- » Define who is responsible for control coordination.
 - » Does the company have a control strategy?
 - » Is Audit communicating control requirements first or is IT/business having these first work shops?
- » Communicate to the external auditors regularly.
 - » The timeline to decommission applications at the acquired company matters.
 - » Typically, systems that are replaced within six months do not need to be tested for the current year.
 - » Need to be confirmed with the Internal and External Auditors!

Acquired a material location.....

Now What (Audit Perspective)? (Look Familiar!?)

- » Start early
 - » Companies have one year to become SOX compliant on an acquired company.
 - » Goes fast when remediation is required!!
- » Get internal audit involved in the project (at least as part-time members).
- » Management is still responsible for the control environment.
- » Define who is responsible for control coordination during projects.
 - » Does the company have a control strategy?
 - » Is Audit communicating control requirements first or is IT/business having these first work shops?
- » Communicate to the external auditors regularly.
 - » The timeline to decommission applications at the acquired company matters.
 - » Typically, systems that are replaced within six months do not need to be tested for the current year.
 - » Need to be confirmed by the Internal and External Auditors!
 - » Need to understand external auditor testing strategy for acquired location (control based vs. substantive testing)

Roadmap to Controls compliance (e.g. Sarbanes Oxley) – Scenario

The timeline below is a representative example of an effort to achieve SOX readiness and compliance after an acquisition. The red box represents initial readiness efforts, including “dry run” testing, to prepare for testing that will support SOX compliance.

Activity	Acquisition closes				Sarbanes Oxley in-scope				Move to SAP (single instance)			
	Year 1	Year 2	Year 3	Year 4	Year 1	Year 2	Year 3	Year 4	Year 1	Year 2	Year 3	Year 4
Acquisition closes	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Planning, scoping and materiality	Red	Red	Yellow	Yellow	Yellow	Red	Yellow	Yellow	Red	Red	Yellow	Yellow
Leverage existing documentation standards, templates and tools	Yellow	Red	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Communicate and document key processes and controls	Yellow	Red	Red	Yellow	Yellow	Yellow	Yellow	Red	Yellow	Red	Yellow	Yellow
Control design assessment and optimization	Yellow	Red	Red	Yellow	Yellow	Red	Yellow	Yellow	Yellow	Red	Yellow	Yellow
Remediation activities (as needed)	Yellow	Red	Red	Red	Red	Red	Red	Red	Yellow	Yellow	Yellow	Yellow
Pilot walkthrough and testing	Yellow	Yellow	Red	Red	Red	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Walkthrough and testing	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Red	Red	Red	Red	Red	Red
Evaluate deficiencies (as needed)	Yellow	Yellow	Red	Red	Red	Red	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
External auditor coordination	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red

A proven approach to SAP S/4HANA and Acquisition Projects



Project control considerations – Phase 1 Mobilization and Scoping

Phase 1 Mobilization and Scoping

- » A Power Point or equivalent should be documented that includes:
 - » Steering Committee/Project Sponsor
 - » Project Manager and Project Teams
 - » Project Timeline/Milestones
 - » Project charter/scope
- » Schedule periodic status meetings with status tracking requirements.
- » Complete a detailed project plan with estimated start date, completion dates and % estimation to completion.
- » Ensure control and compliance tasks are built into the project plan.
- » Communicate with Internal and External Audit on the scope.
- » Include Internal Audit within the project.

Project control considerations – Phase 2 SDLC Review

Phase 2 SDLC Review

- » The project plan is kept up to date.
- » The project complies with the company's SDLC project methodology.
- » Status meetings are regularly scheduled with the various project teams and the steering committee.
- » Technical and functional specifications are documented.
- » Testing and data conversion strategies are approved.
- » Test plans (e.g., UAT, parallel, validation) and results are documented.
- » Key data elements are reconciled between the source system and new production system.
 - » *******Ensure evidence is retained for audit purposes*******
- » Issues and risks are centrally tracked.
- » New reports and application controls are identified as a result of the change.
- » Cut-over plan is documented
- » Security changes are approved with segregation of duties analysis.
- » Go-No Go meeting is held and project is formally approved.
- » Critical care period is defined if necessary.

Project control considerations – Phase 3 Design Effectiveness

Phase 3 Design Effectiveness

- » Project should require security changes be approved and segregation of duty analysis is performed.
 - » Require obsolete transactions and authorizations should be removed from custom roles.
- » Map existing controls against “To-be” controls.
 - » Entity level controls (including 302 certification)
 - » Process/financial controls
 - » IT general controls and automated application controls
- » Require audit walkthroughs to assess the “To-be” controls prior to go-live.
- » Require that audit report on the design effectiveness of key controls.
- » Develop remediation plans for each identified design effectiveness issue.
- » Develop mechanism to centrally track design effectiveness issues and assess any patterns or trends.
- » Implement remediation plans for each design effectiveness issue, including redesign or replacement of controls.
- » Re-assess the design of the key controls with remediated issues.
- » 3rd party access should be evaluated. Critical care period documented.
- » Conduct management sign-off on design effectiveness.

Project control considerations – Phase 4 Operating Effectiveness

Phase 4 Operating Effectiveness

- » Audit should select samples to test the operating effectiveness.
- » Develop remediation plans for each identified operating effectiveness issue.
- » Develop mechanism to centrally track design effectiveness issues and assess any patterns or trends.
- » Implement remediation plans for each operating effectiveness issue, including redesign or replacement of controls.
- » Re-assess the design of the key controls with remediated issues.
- » Schedule periodic status meetings with status tracking requirements
- » Communicate with External Audit on the results.

When “Audit involvement in projects” is done well

-  Existing controls are leveraged and grouped as common controls (where possible)
-  Reliance on automated controls is maximized, reducing the total compliance effort
-  Internal Auditors are business partners and collaborators that solve control issues proactively.
-  The burden on company personnel is minimized
-  External auditors can place greater reliance on the control environment, taking more a controls-based approach to the audit, increasing flexibility of audit timing and decreasing overall effort required
-  The overall control environment of the company is improved as “controls awareness” is enhanced throughout the organization (not just in Finance)



Thank You



SCHNEIDER DOWNS

Big Thinking. Personal Focus.

Working together every day to make our
firm, clients and communities better.